

# Pranjal Sahu

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CONTACT INFORMATION	Department of Computer Science Stony Brook University Computer Science Building, Engineering Dr Stony Brook, New York 11790 USA <a href="https://www3.cs.stonybrook.edu/~psahu">https://www3.cs.stonybrook.edu/~psahu</a> (631)590-0490 <a href="mailto:psahu@cs.stonybrook.edu">psahu@cs.stonybrook.edu</a> <a href="https://github.com/PranjalSahu">github.com/PranjalSahu</a> <a href="https://stackoverflow.com/users/907770">stackoverflow.com/users/907770</a>		
RESEARCH INTERESTS	Deep Learning, Computer Vision, Computer Graphics and its application in Biomedical Imaging such as De-noising, Bio-markers detection, Volume reconstruction.		
EDUCATION	<b>Stony Brook University, 3.87</b> Ph.D. Student in Computer Science (2016-2021 expected) <ul style="list-style-type: none"><li>• Dissertation Topic: Deep Learning in Biomedical Imaging</li><li>• Advisor: Dr. Hong Qin</li></ul> <b>Indian Institute of Technology Kharagpur, 8.35</b> B.Tech.(Hons) in Computer Science, 2013 <ul style="list-style-type: none"><li>• Thesis Topic: Object tracking in video and its application in Healthcare.</li><li>• Advisor: Dr. A.K. Majumdar</li></ul>		
SELECTED PUBLICATIONS	<b>Pranjal Sahu</b> , Yiyuan Zhao et al. <i>Self-supervised Structure Correction for Robust Lung Segmentation in Presence of Tumors</i> , IEEE Journal of Biomedical and Health Informatics, J-BHI, 2019. (In preparation)  <b>Pranjal Sahu</b> , Hailiang Huang, Wei Zhao, and Hong Qin. <i>Using virtual digital breast tomosynthesis for de-noising of low-dose projection images</i> , International Symposium on Biomedical Imaging, ISBI 2019.  <b>Pranjal Sahu</b> , Dantong Yu, Mallesham Dasari, Fei Hou and Hong Qin. <i>A Lightweight Multi-section CNN for Lung Nodule Classification and Malignancy Estimation</i> , IEEE Journal of Biomedical and Health Informatics, J-BHI, 2018.  <b>Pranjal Sahu</b> , Dantong Yu and Hong Qin. <i>Apply lightweight deep learning on internet of things for low-cost and easy-to-access skin cancer detection</i> , Medical Imaging: Imaging Informatics for Healthcare, Research, and Applications, International Society for Optics and Photonics, SPIE, 2018 ( <b>Best Demo Award</b> ).  <b>Pranjal Sahu</b> , Dantong Yu and Kevin Yager, Mallesham Dasari and Hong Qin. <i>In-Operando Tracking and Prediction of Transition in Material System using LSTM</i> , International Workshop on Autonomous Infrastructure for Science, HPDC, 2018.		
SCIENTIFIC RESEARCH EXPERIENCE	Robust semantic segmentation of Lung CT. Advisor: Dr. Yiyuan Zhao <b>Siemens Healthineers</b> , Malvern, PA. (2019)  Autonomous Infrastructure for Transition Prediction. Advisor: Dr. Dantong Yu <b>Brookhaven National Laboratory</b> , Computational Science Initiative (2017)		
WORK EXPERIENCE	2019-2019	Summer Internship	Siemens Healthineers, Malvern, PA, USA
	2015-2015	Data Scientist	HT Media, Gurgaon, India
	2013-2015	Software Engineer	Samsung Research Institute, Noida, India

HONORS AND AWARDS	2018	Best Demo Award in SPIE Medical Imaging Conference
	2016–2017	Computer Science Chairman Fellowship, Stony Brook University
	2007	Mahatma Hansraj merit award in CBSE Board 2006-07
	2005	Represented (C.G.) state in National Children Science Congress
TEACHING EXPERIENCE	Spring 2017	Teaching Assistant, Computer Graphics (Undergraduate)
	Spring 2017	Teaching Assistant, Medical Imaging (Undergraduate)
OTHER TALKS AND PUBLICATIONS	<p>Mallesham Dasari, Arani Bhattacharya, Santiago Vargas, <b>Pranjal Sahu</b>, Aruna Balasubramanian, Samir Das. <i>Streaming 360 degree Videos using Super-resolution</i>, IEEE INFOCOM 2020.</p> <p>Hailiang Huang, <b>Pranjal Sahu</b>, Xiaoyu Duan, Wei Zhao. <i>Denoising and Scatter Correction for Contrast-Enhanced Digital Breast Tomosynthesis</i>, RSNA 2019, Chicago.</p> <p>Xiaoyu Duan, <b>Pranjal Sahu</b>, Hailiang Huang, Wei Zhao. <i>Scatter correction with deep learning approach for contrast enhanced digital breast tomosynthesis (CEDBT) in both cranio-caudal (CC) view and mediolateral oblique (MLO) view</i>, IWBI 2020, (Submitted).</p> <p>Na Song, Daniela Craciun et al. <i>Protein Shape Retrieval</i>, Eurographics Workshop on 3D Object Retrieval, 3DOR 2017.</p>	
GRADUATE COURSEWORK	<div> <input type="checkbox"/> Computer Graphics <input type="checkbox"/> Artificial Intelligence </div> <div> <input type="checkbox"/> Computer Vision <input type="checkbox"/> Analysis of Algorithms </div> <div> <input type="checkbox"/> Computer Networks <input type="checkbox"/> Asynchronous Systems </div> <div> <input type="checkbox"/> Convex Optimization </div>	
RELEVANT SKILLS	<div>Languages: Python, C++, C, Matlab</div> <div>Deep Learning: Keras, Tensorflow, Pytorch</div> <div>Libraries: OpenCV, Android SDK, Numba, Nltk</div> <div>IDEs: Jupyter Notebook, Eclipse, Android Studio</div>	
ACADEMIC PROJECTS	<p><i>Facial Action Unit Detection</i>, Computer Vision, (Tensorflow).</p> <p><i>Stochastic Quasi-Newton Optimization for Deep Learning</i>, Convex Optimization</p> <p><i>Byzantine Chain Replication</i>, Asynchronous Systems, (DistAlgo, Python)</p> <p><i>Identification of user actions on Android apps</i>, Computer Networks, (Android)</p> <p><i>Process Knowledge extraction</i>, Artificial Intelligence, (Python)</p> <p><i>Object Tracking in Video and its application in Healthcare</i>, B.Tech Thesis, (OpenCV)</p> <p><i>Point Cloud Triangulation</i>, Computer Graphics, (OpenGL, C++)</p> <p><i>Automatic construction of 3D models from Architectural Line drawings</i>, Computer Graphics (OpenGL, C++).</p>	
EXTRA CURRICULARS	<div><input type="checkbox"/> Silver medal in Inter Hall Thermocol and clay modelling at IIT Kharagpur</div> <div><input type="checkbox"/> Member of Azad Hall of Residence Fine Arts team at IIT Kharagpur</div>	